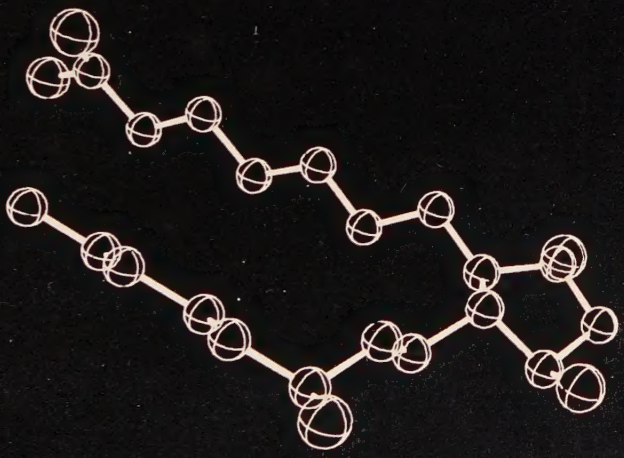
VOL. 2 1972
JULY — DECEMBER

PROSTAGLANDINS



GERON-X

PROSTAGLANDINS

Editors

Gerald G. Anderson | Burton V. Caldwell | Leon Speroff

Department of Obstetrics & Gynecology
Yale University School of Medicine
New Haven, Connecticut
06510

Associate Editors

Harold R. Behrman
Merck Research Laboratories
Rahway, New Jersey
USA

Marc Bygdeman
Karolinska Sjukhuset
Stockholm
Sweden

James B. Field
University of Pittsburgh
Pittsburgh, Pennsylvania
USA

Bernard M. Jaffe
Washington University
St. Louis, Missouri
USA

Sultan M. M. Karim
Makerere University
Kampala
Uganda

Frederick A. Kuehl, Jr.
Merck Research Laboratories
Rahway, New Jersey
USA

James B. Lee
State University of New York
Buffalo, New York
USA

Lawrence M. Lichtenstein
Johns Hopkins University
Baltimore, Maryland
USA

John M. Marsh
University of Miami
Miami, Florida
USA

John E. Pike
Upjohn Company
Kalamazoo, Michigan
USA

Peter W. Ramwell
ALZA Corporation
Palo Alto, California
USA

Bengt Samuelsson
Karolinska Institutet
Stockholm
Sweden

Hideo Shio
Kyoto University
Kyoto
Japan

David A. Van Dorp
Unilever Research
Vlaardingen
The Netherlands

Ned M. Weinshenker
ALZA Corporation
Palo Alto, California
USA

Donald E. Wilson
University of Illinois
Chicago, Illinois
USA

Nils Wiqvist
Karolinska Sjukhuset
Stockholm
Sweden

Leon S. Wolfe
McGill University
Montreal, Quebec
Canada

Acknowledgement for Cover Design
Prostaglandin conformation redrawn from figure 1, I. Rabinowitz, P. W. Ramwell and P. Davison. Nature — New Biology 233: 88, 1971.

PROSTAGLANDINS

July 1972 Volume 2, Number 1

Physiological Role of Prostaglandins in the Induction of Ovulation
A. Tsafriri, H. R. Lindner, U. Zor, and S. A. Lamprecht 1

Antigenic Activity of Prostaglandins: Specificities of Prostaglandins E_1, A_1, and $F_{2\alpha}$ Antigen-Antibody Reactions
S.-C. Yu and G. Burke 11

Prostaglandin E_2: Evidence for Luteolytic Effects
Anant P. Labhsetwar 23

Modulation of Rabbit Testicular Contractions by Prostaglandins, Steroids and Some Pharmacological Compounds
Rod R. Seeley, James L. Hargrove, Jay M. Johnson, LeGrande C. Ellis 33

Radioimmunoassay of the A Prostaglandins
Randall M. Zusman, Burton V. Caldwell, Leon Speroff, and Harold R. Behrman 41

Some Cardiovascular and Respiratory Effects of Prostaglandins E_1, E_2, and $F_{2\alpha}$ in the Calf
A. J. Lewis and P. Eyre 55

Selected Abstracts 65

Prostaglandin Bibliography
James R. Weeks 69

PROSTAGLANDINS

August 1972 Volume 2, Number 2

Letters to the Editor
M. J. Silver, J. B. Smith, C. Ingerman and J. J. Kocsis 75

Studies on Growth Hormone Secretion.
IV. *In Vivo* Effects of Prostaglandin E_1
F. Hertelendy, H. Todd, K. Ehrhart and R. Blute 79

Changes in Plasma Estriol and Progesterone during Labor
Induced with Prostaglandin $F_{2\alpha}$ or Oxytocin
William J. LeMaire, William N. Spellacy, Allen B. Shevach
and Stanley A. Gall 93

Preparation of Specific Antiserum to Prostaglandin A
William A. Stylos and Baruch Rivetz 103

Gas-Liquid Chromatography of Trimethylsilyl and Alkyl
Oxime-Trimethylsilyl Derivatives of Some Prostaglandins
B. S. Middleditch and D. M. Desiderio 115

Bulletin Board 123

Massive Initial Prostaglandin Impact in Postconceptional Therapy
A. I. Csapo, A. Kivikoski and W. G. Wiest 125

Induction of Labour with Prostaglandin $F_{2\alpha}$ in Missed Abortion,
Fetus Mortuus, and Anencephalia
Poul Hjortkjaer Pedersen, Jorgen Falck Larsen and
Borge Sorensen 135

The Effect of Prostaglandin E_2 in Inducing Sedation in the Rat
Desmond P. Gilmore and Abubakar A. Shaikh 143

Prostaglandin Bibliography
James R. Weeks 153

PROSTAGLANDINS

September 1972 Volume 2, Number 3

Prostaglandin Mediated Luteolytic Effect of an Intrauterine Device in Sheep
C. H. Spilman and R. T. Duby 159

A Rapid Spectrophotometric Assay for Prostaglandin Synthetase: Application to the Study of Non-Steroidal Antiinflammatory Agents
Clyde Takeguchi and Charles J. Sih 169

Serum $PGF_{2\alpha}$ Levels during Late Pregnancy, Labour and the Puerperium
Hilary C. Brummer 185

Gas Chromatography of Prostaglandin Heptafluorobutyrate Methyl Esters
B. S. Middleditch and D. M. Desiderio 195

Biological Evidence for the Direct Stimulating Effect of $PGF_{2\alpha}$ on the Release of Pituitary Luteolytic Agent(s) of Pseudopregant Rats
Puttipongse Varavudhi and Prakong Chobdieng 199

Quantitative Determination of 15-Epi-$PGF_{2\alpha}$ in $PGF_{2\alpha}$
Ned M. Weinshenker and Anna Longwell 207

Prostaglandin (PGA_1), Angiotensin and Renal Function
William M. McClatchey and Albert A. Carr 213

Changes in Human Plasma Catecholamines and Dopamine-Beta-Hydroxylase Produced by Prostaglandin $F_{2\alpha}$
R. A. Mueller, J. I. Fishburne, Jr., W. E. Brenner, J. T. Braaksma, L. G. Staurovsky, J. L. Hoffer and C. H. Hendricks 219

Regulation of Menstrual Cycle and Termination of Pregnancy in the Monkey by Estradiol and $PGF_{2\alpha}$
Abubakar A. Shaikh 227

Prostaglandin Bibliography
James R. Weeks 235

PROSTAGLANDINS

October 1972 Volume 2, Number 4

Response of the Midpregnant Human Uterus to Systemic Administration of 15(S)-15-Methyl-Prostaglandin $F_{2\alpha}$
M. Toppozada, F. Béguin, M. Bygdeman and N. Wiqvist 239

Prostaglandin E_1 Metabolism by Human Plasma
Wendy J. McDonald-Gibson, R. G. McDonald-Gibson and M. W. Greaves 251

Effect of Prostaglandin F_{2a} on Length of Diestrus in Mares
R. H. Douglas and O. J. Ginther 265

Prostaglandin-Induced Premature Oviposition in the Coturnix Quail
F. Hertelendy 269

Preparation and Specificity of Antibodies to 15-Keto-Prostaglandin $F_{2\alpha}$
Lawrence Levine and Rose Mary Gutierrez-Cernosek 281

Inhibition of Abortion and Fetal Death Produced by Endotoxin or Prostaglandin $F_{2\alpha}$
M. J. K. Harper and R. C. Skarnes 295

Prostaglandin-Oxytocin Abortion:
A Clinical Trial on Intra-Amniotic Prostaglandin $F_{2\alpha}$ in Combination with Intravenous Oxytocin
Markku Seppälä, Pauli Kajanoja, Olof Widholm and and Paavo Vara 311

Prostaglandin Bibliography
James R. Weeks 321

PROSTAGLANDINS

November 1972 Volume 2, Number 5

International Conference on Prostaglandins 327

Stimulatory Effects of Prostaglandins upon Luteinization of Rhesus Monkey Granulosa Cell Cultures
Cornelia P. Channing 331

Effects of Prostaglandin Inhibitors, 7-Oxa-13-prostynoic Acid and Eicosa-5,8,11,14-tetraynoic Acid, upon Luteinization of Rhesus Monkey Granulosa Cells in Culture
Cornelia P. Channing 351

Inhibition of Prostaglandin E_2 Biosynthesis by Δ^1-Tetrahydrocannabinol
Sumner Burstein and Amiram Raz 369

Antifertility Properties of a New Prostaglandin — ICI 74205
A. P. Labhsetwar 375

Cellular Localization of Prostaglandin A_2 in the Rat Kidney
Guido Perez and John McGuckin 393

The Effect of Prostaglandin $F_{2\alpha}$ in the Closure of the Ductus Arteriosus (Abstract of work in progress)
R. B. Elliott and M. B. Starling 399

Levels of F Prostaglandin (PGF) in Uterine Tissue during the Estrous Cycle of Hamster: Effects of Estradiol and Progesterone
S. K. Saksena and M. J. K. Harper 405

Aspirin and Indomethacin Abolish Thyrotropin-Induced Increase in Thyroid Cell Prostaglandins
Gerald Burke 413

The Possible Mode of Action of Prostaglandins. IV. Reversal of the Detrimental Effects of Prostaglandin E_2 in the Termination of Decidual Growth in Pseudopregnant Rats by Using Prolactin or Progesterone
Amar Chatterjee 417

Prostaglandin Bibliography
James R. Weeks 427

PROSTAGLANDINS

December 1972 Volume 2, Number 6

Luteolysis in Sheep with Ovarian Autotransplants Following Concurrent Infusions of Luteinizing Hormone and Prostaglandin $F_{2\alpha}$ into the Ovarian Artery
Mildred E. D. Cerini, W. A. Chamley, J. K. Findlay and J. R. Goding 433

Thyrotropin- and Prostaglandin E_2-Responsive Adenyl Cyclase in Thyroid Plasma Membranes
K. Kowalski, S. Sato and G. Burke 441

Termination of Early Gestation with Vaginal Prostaglandin $F_{2\alpha}$ Tablets
Robert C. Corlett, Boonlaw Sribyatta, Daniel R. Mishell, Jr., Charles Ballard, Robert M. Nakamura and Ian H. Thorneycroft 453

Failure of Prostaglandin $F_{2\alpha}$ to Affect LH Secretion in the Ovariectomized Ewe
W. A. Chamley and Margaret Christie 465

Physiologic Role of Prostaglandins of the E (PGE), F (PGF) and AB (PGAB) Groups.
Estimation by Radioimmunoassay in Unextracted Human Plasma
William Jubiz, Jacqueline Frailey, Connie Child and Ken Bartholomew 471

Comparative Responses of Hamster Vas Deferens and Seminal Vesicle to the Effect of Prostaglandins E_1 and E_2 on Stimulation by Epinephrine
Perry Stahl 491

Prostaglandin F Concentration in the Peripheral Blood of the Ewe during the Estrous Cycle
S. P. Coudert, G. D. Phillips, M. Palmer and C. Faiman . . . 501

Level of F Prostaglandin (PGF) in Peripheral Plasma and Uterine Tissue of Cyclic Rats
S. K. Saksena and M. J. K. Harper 511

The Effects of a Series of Prostaglandins on *In Vitro* Models of the Allergic Response and Cellular Immunity
L. M. Lichtenstein, E. Gillespie, H. R. Bourne and C. S. Henney 519

Author Index for Volume 2 529
Subject Index for Volume 2 531